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## METHODS AND SYSTEMS FOR PROCESSING MICROFLUIDIC SAMPLES OF PARTICLE CONTAINING FLUIDS

## **ABSTRACT**

The present invention relates to a microfluidic system for processing a cell-containing liquid. The system includes a microfabricated substrate having an enrichment channel to prepare an enriched cell sample from the cell-containing liquid. A flow through member is in liquid communication with the enrichment zone. The flow through member substantially prevents cells of the cell-containing fluid from exiting the enrichment zone while allowing liquid of the cell-containing liquid to exit the enrichment zone. A gas actuator associated with the enrichment zone provides a gas pressure sufficient to move the enriched cell sample from the enrichment zone.